

# GEC 480

Full duplex counter Intercom system



Full duplex  
technology

Excellent  
audio  
quality

Stand-  
alone  
solution

Easy and  
quick  
installation

## Professional counter Intercom solution

The design of the GEC 480 counter Intercom system allows clear and natural speech between acoustically separated locations, e.g. ticket counters, ski-lift stations or isolation wards in hospitals. The built-in speech processor allows high-quality hands-free, full duplex communication. The counter Intercom also adapts to different levels of background noise thanks to four different operating modes and individual volume adjustment for the client and the operator station. Optionally, a proximity sensor or a call button can be added on the customer side to activate the system.

## Features and highlights

- Full duplex communication
- Excellent audio quality, even at high volume
- Quick and easy installation
- Volume adjustable for client and operator station
- Possibility for proximity sensor connection
- Automatic muting

## Product details

### GEC 480

Counter Intercom system designed as desktop station with gooseneck microphone. Built-in speech processor with four operating modes:

- Open PLUS (full duplex for increased volume)
- Open (full duplex)
- Switched (duplex with voice switching)
- Simplex

**Available versions:**

- GEC 480S
- GEC 481S:
- GEC 481SU:

These versions differ only in the respective scope of delivery.



## Accessories

### MIC Q400

Microphone with hypercardioid polar pattern for use on the client side. The microphone can also be used for outdoor mounting, but must be protected against rain and moisture.



### MIC 480

Microphone with omnidirectional polar pattern for use on the client side. The built-in microphone is designed to fit glass panes or aluminium panels up to 10 mm (0.39 in) in thickness.



# GEC 480

## Technical specifications



### Technical data GEC 480

<b>Power supply:</b>	12 VAC (e.g. via the plug in transformer PA 9 connected to the operator station)
<b>Speech connection:</b>	Open PLUS (full duplex for higher volume) Open (full duplex) Switched (duplex-controlled by speech) or Simplex
<b>Cabling:</b>	4 wires (6 wires with proximity sensor or bell-push) + power supply
<b>Amplifier:</b>	client-side: 4 W/4 Ω operator-side: 4 W/4 Ω
<b>Gooseneck microphone:</b>	electret condenser microphone polar pattern: cardioid speaking distance: max. 50 cm (19.7 in)
<b>Frequency range:</b>	200 Hz to 12 kHz
<b>Operating temperature range:</b>	0 °C to +50 °C (32 °F to 122 °F)
<b>Storage temperature range:</b>	-20 °C to +50 °C (-4 °F to 122 °F)
<b>Relative humidity:</b>	20 % to 80 %
<b>Dimensions (W x H x D):</b>	179 x 230 x 57 mm (7.05 x 9.06 x 2.25 in) gooseneck: 430 mm (16.94 in)
<b>Weight incl. package:</b>	approx. 1,200 g (2.7 lbs)

### Technical data MIC Q400

<b>Polar pattern:</b>	cardioid
<b>Sensitivity:</b>	15 mV/Pa
<b>Frequency range:</b>	100 Hz to 8 kHz
<b>Temperature range:</b>	-25 °C to +70 °C (-13 °F to 158 °F)
<b>Cable length:</b>	2.8 m (9.2 ft), shielded
<b>Dimensions (W x H x D):</b>	24 x 43 x 14 mm (0.94 x 1.69 x 0.55 in)
<b>Colour:</b>	black

### Technical data MIC 480

<b>Type:</b>	built-in electret condenser microphone
<b>Polar pattern:</b>	omnidirectional
<b>Sensitivity:</b>	7.1 mV/Pa
<b>Frequency range:</b>	20 Hz to 16 kHz
<b>IP rating:</b>	IP53 (acc. EN 60529 only if installed correctly)
<b>Temperature range:</b>	-20 °C to +60 °C (-4 °F to 140 °F)
<b>Colour:</b>	black
<b>Dimensions (ø x D):</b>	14 x 20 mm (0.55 x 0.79 in)
<b>Types:</b>	MIC 480: 4 m (13.1 ft), shielded MIC 480S-08: 0.8 m (2.6 ft), shielded MIC 480S-12: 1.2 m (3.9 ft), shielded

### Extent of supply

Counter Intercom system including:

- Operator station (desktop station with gooseneck microphone)
- Power supply (depending on version of counter Intercom, see below)
- Surface mount microphone Q 400 for the client side (included only with version GEC 480S, see below)
- 8-way modular socket for client-side connection
- Connection cable (3 m/9.8 ft) from operator station to modular socket
- Short reference

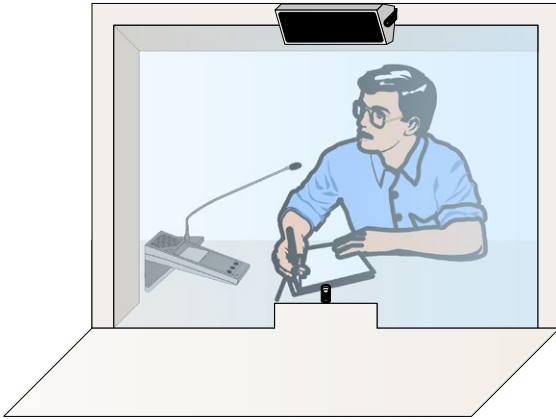
The three versions of counter Intercom systems differ in extent of supply:

Version	Client-side microphone	Power supply
GEC 480S	MIC Q400 included	PA 9 (input: 240 VAC, 50 – 60 Hz; output: 12 VAC)
GEC 481S	no microphone included	PA 9 (input: 240 VAC, 50 – 60 Hz; output: 12 VAC)
GEC 481SU	no microphone included	no power supply included

# GEC 480

## Installation instructions

### Client-side mounting



The client-side loudspeaker must be mounted at least 50 cm (19.7 in) away from the client-side microphone and, if possible, should not face the microphone directly because this leads to an echo of the operator's voice on the client side. It is recommended to choose one of the following mounting versions:

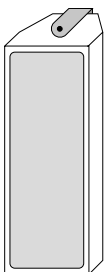
- Loudspeaker at the top, max. 2 m (6.5 ft) above the finished floor.
- Loudspeaker on the side at ear level, approx. 1.6 m (5.2 ft) above the finished floor.

If possible, the microphone should be mounted on axis, facing the client and horizontally aligned in the centre of the glass pane. If this is not possible, the microphone has to be mounted on the side facing the client. The closer the microphone is mounted to the client's mouth, the lower the volume required at the counter Intercom station. It is recommended to choose one of the following mounting versions:

- Microphone in the centre of the glass pane.
- Microphone on the side, 1.3 m to 1.5 m (4.3 ft to 4.9 ft) above the finished floor.

### Client-side loudspeaker

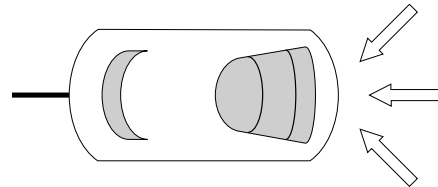
Basically, any loudspeaker with an impedance greater than or equal to 4  $\Omega$  can be used. It is recommended to use the following type:



- AL 10 (10 W/4  $\Omega$ , 100 x 270 x 90 mm/3.94 x 10.64 x 3.55 in)
- For this loudspeaker, use 2 screws with a diameter of 5 mm. Fastening, screw type and screw length depend on the mounting ground.

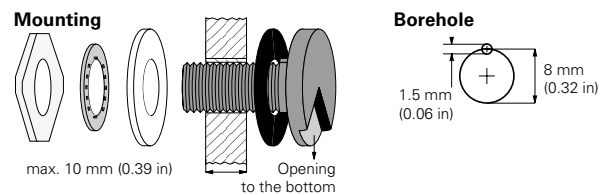
### Client-side microphone

#### Surface mount microphone MIC Q400



This microphone has a special polar pattern, as shown in the illustration. It should be mounted in such a way that the client's voice enters the microphone in the direction of the arrows. The microphone can also be used for outdoor mounting, but must be protected against rain and moisture.

#### Built-in microphone MIC 480

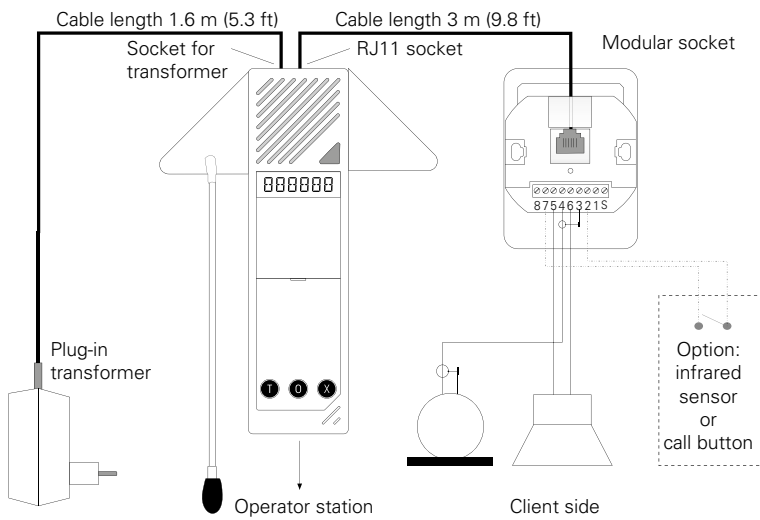


The built-in microphone is designed to fit glass panes or aluminium panels of up to 10 mm (0.39 in) in thickness

### Precautions and installation instructions

- This device must be installed or replaced by trained and qualified personnel only.
- Before using the device, make sure all cables are connected correctly and are undamaged.
- Disconnect all power supplies before performing any maintenance work on the device.
- All connected circuits must meet the safety requirements for ES1 (cf. SELV acc. to IEC/EN 60950-1) and PS2 (limited power source) acc. to IEC/EN 62368-1.
- Install the device at an easily accessible mains socket.
- The GEC 480 should be protected against mains transient overvoltage (cf. IEC/EN 62368-1).
- In the event of interference, speech can be incomprehensible.
- MIC 480: To fulfil IP53 classification, the opening of the microphone must face the bottom.

## Connection



## Quality tested. Reliable. Smart.

COMMEND products are developed and manufactured by Commend International in Salzburg, Austria.

The development and manufacturing processes are certified in accordance with **EN ISO 9001:2015**.



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